Application/Control Number: 09/848,670 Art Unit: 2137 .

RESPONSES TO THE OBJECTIONS CITED IN DETAILED OFFICE ACTION

DETAILED ACTION

Drawings

Objection

1. The drawings were objected to because reference number "65" is not pointing to"b2" as stated in the specification. Corrected drawing sheets in compliance with 37 CFR . 1.121(d) are required in reply to the Office action to avoid abandonment ......

Response
The attached drawing sheet No. 1 is amended to clearly point out the reference number "65 to "b_2"

Objection:
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 60, 67, 70, 71., 73, 84, 85, 90, 91, 93, 95, 97, 101, 105, 109, 110, 111, 150, 180, 190, 213, 225, 309, 320, 321, 430, 435, 505, 510, 555, 820, 825, 830, 840, 883, 887, 889. Corrected drawing sheets in compliance with 37 CFR 1.121 (d) or amendment to the specification to add the reference character(s)in the description. In compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application.

Response
The attached drawing sheets and/or the specifications are updated and amended to clearly show the reference characters as mentioned above.

Objection:
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 201. Corrected drawing sheets in compliance with 37 CFR 1.121 (d) are required in reply to the Office action to avoid abandonment of the application.

Response
The relevant drawing sheets and/or the specifications are updated and attached to clearly show the reference characters as mentioned above

Objection:
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of repeating the encryption rounds "as illustrated in step 221" must be shown or the feature(s) canceled from the claim(s). Also, the existence pf "an inverse function for every function defined as stated in the second paragraph an page 8 regarding fig.3 must be shown or the feature(s) canceled from the claim(s).No new matter should be entered.

Response
The attached drawing sheet shows FIG. 9A which illustrates in detail the step of repeating the encryption rounds. In addition, the explanation related to the FIG. 9A is inserted in the related paragraphs and is underlined.

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Objection

5. The drawings are objected to because information segment "S" is not shown in step 215 of fig.9 as stated on page 14 paragraph 2. Also, in fig.4A, it shows M_{min} being greater than M_{max}. Corrected drawing sheets in compliance with 37 CFR 1.121 (d) are required in' reply to the Office action to avoid abandonment of the application

Response:

FIG. 4A has been corrected to properly show that $M_{min} \leq Mn \leq M_{max}$. The "Amended" FIG. 4A showing this change is hereby attached.

Objection

6. . The disclosure is objected to because of the following informalities: Starting with paragraph 2 on page 8 and then pervading throughout the specification, it is not understood whether the second pool contains the inverse functions of the functions within the first pool, or that the second pool contains "another class of plurality of functions" with a "unique inverse function for each of the functions defined in the second pool" as stated in the beginning of the paragraph. If the latter is to be understood as written, then the second pool would appear to not have any relationship to the first as suggested throughout the specification and fig.3.

However, in either case, as stated above, the claimed subject matter of there being a inverse function for every function defined in the pool is not shown in fig.3, which only adds to the confusion.

Response

FIG. 3 has been updated to clearly show how that function's set defined in the first pool is related to the function's set defined in the second pool. In addition, paragraphs [0037] and [0038] have been modified to reflect the changes as presented through FIG. 3.

The specification defines two pools.

The functions defined in the first pool have the following characteristics:

(a)   Any types of mathematical or logical functions of arbitrary complexity can be defined in the first pool.

The functions of arbitrary complexity mean that any type of mathematical or logical functions that the participating remote and host processor can handle and process.

(b)   The function defined in the first pools are used to encrypt random numbers in such a manner that every operation by the said function(s) enhances random characteristics of the said random number;

(c)   An "inverse function" to the functions defined in the first pool may or may not exist.

By definition, the result of a function can be restored to its original value through its inverse function. Mathematically speaking, a function $H(x) = y$ has its inverse function (H^{-1}) if $H^{-1}(y) = x$. If a function does not have an inverse function then it may not be computationally feasible or possible to restore the operated information back to its original form.

The functions defined in the second pool have the following characteristics:

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